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PATENT & TRADEMARK OFFICE

Fig. 1

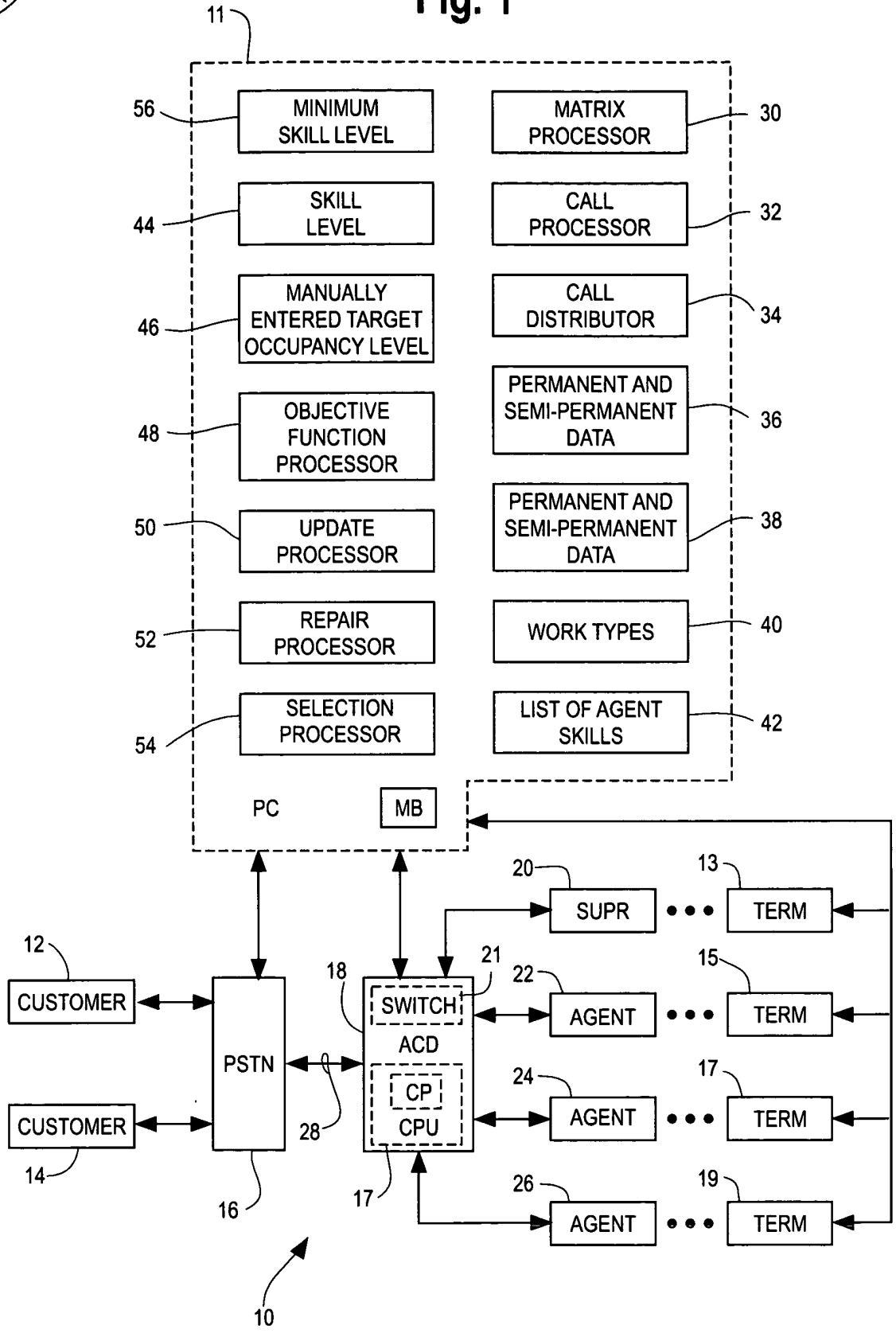


Fig. 2

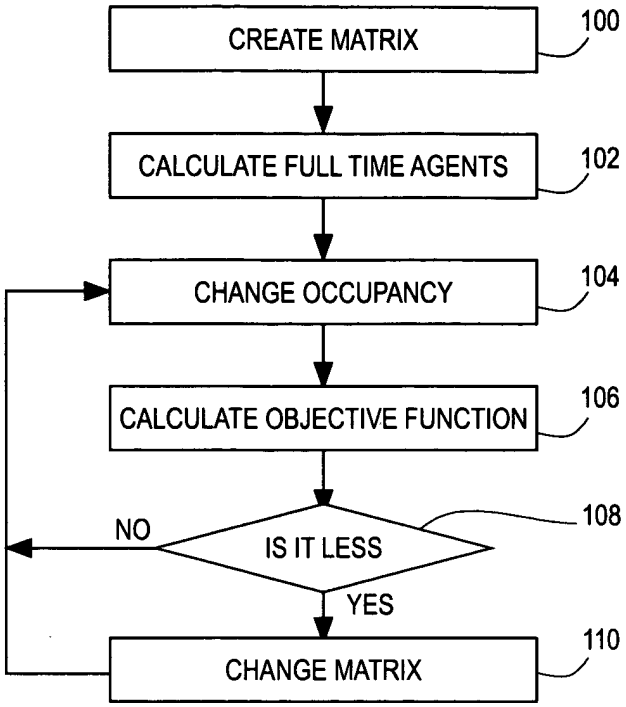

CREATE MATRIX
100
CALCULATE FULL TIME AGENTS
102
CHANGE OCCUPANCY
104
CALCULATE OBJECTIVE FUNCTION
106
IS IT LESS
108
NO
YES
CHANGE MATRIX
110

Fig. 3

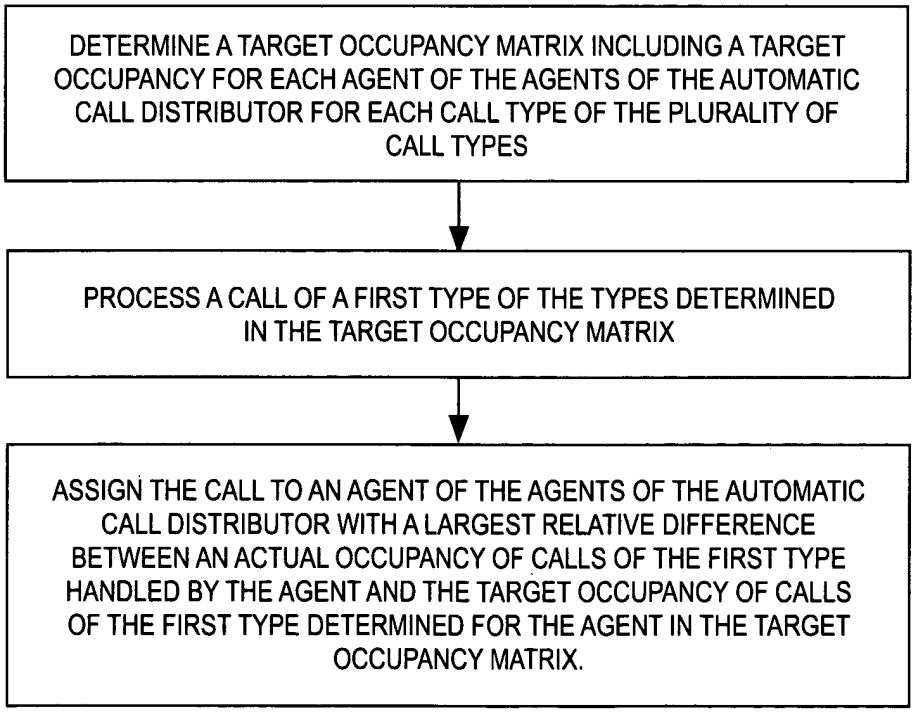

DETERMINE A TARGET OCCUPANCY MATRIX INCLUDING A TARGET OCCUPANCY FOR EACH AGENT OF THE AGENTS OF THE AUTOMATIC CALL DISTRIBUTOR FOR EACH CALL TYPE OF THE PLURALITY OF CALL TYPES
PROCESS A CALL OF A FIRST TYPE OF THE TYPES DETERMINED IN THE TARGET OCCUPANCY MATRIX
ASSIGN THE CALL TO AN AGENT OF THE AGENTS OF THE AUTOMATIC CALL DISTRIBUTOR WITH A LARGEST RELATIVE DIFFERENCE BETWEEN AN ACTUAL OCCUPANCY OF CALLS OF THE FIRST TYPE HANDLED BY THE AGENT AND THE TARGET OCCUPANCY OF CALLS OF THE FIRST TYPE DETERMINED FOR THE AGENT IN THE TARGET OCCUPANCY MATRIX.

Fig. 4

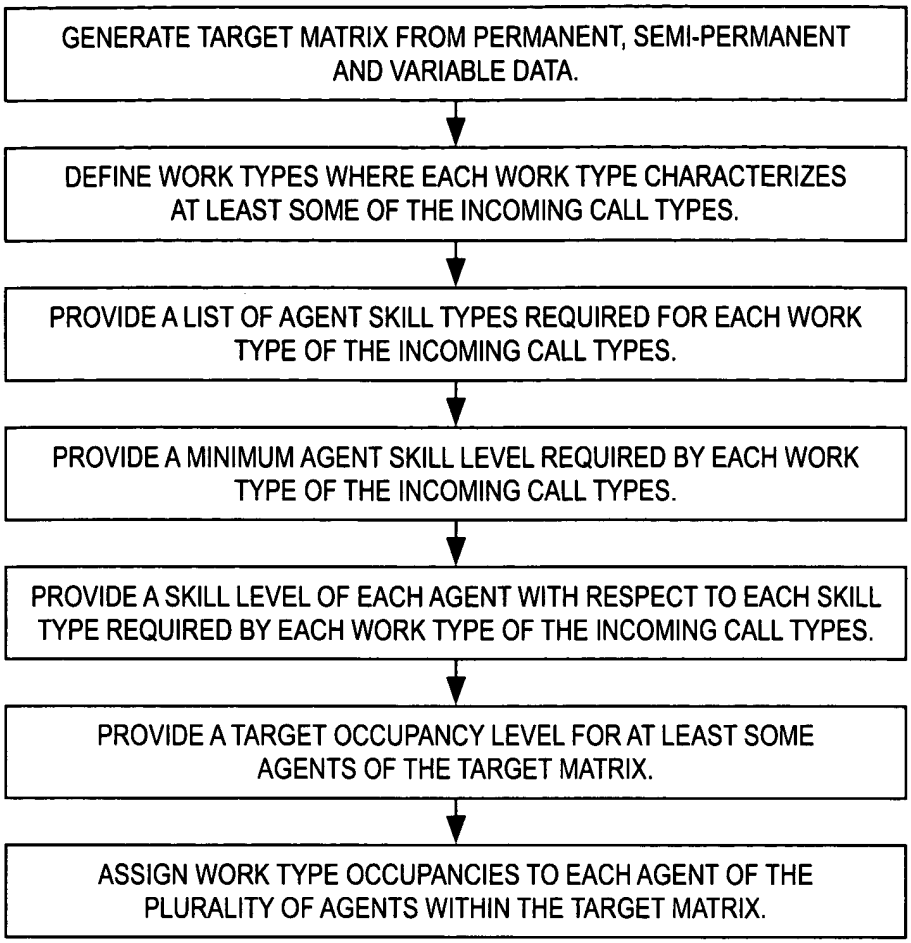
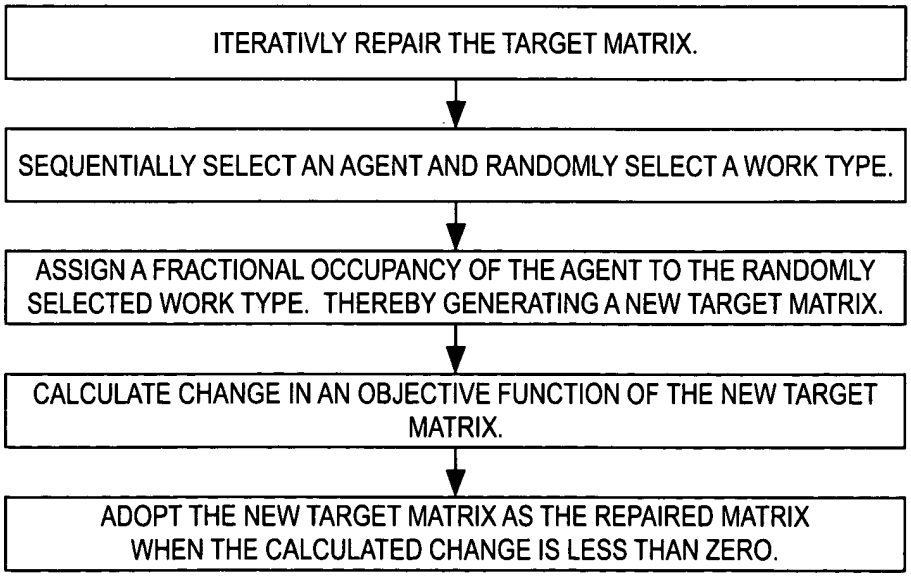

GENERATE TARGET MATRIX FROM PERMANENT, SEMI-PERMANENT AND VARIABLE DATA.
DEFINE WORK TYPES WHERE EACH WORK TYPE CHARACTERIZES AT LEAST SOME OF THE INCOMING CALL TYPES.
PROVIDE A LIST OF AGENT SKILL TYPES REQUIRED FOR EACH WORK TYPE OF THE INCOMING CALL TYPES.
PROVIDE A MINIMUM AGENT SKILL LEVEL REQUIRED BY EACH WORK TYPE OF THE INCOMING CALL TYPES.
PROVIDE A SKILL LEVEL OF EACH AGENT WITH RESPECT TO EACH SKILL TYPE REQUIRED BY EACH WORK TYPE OF THE INCOMING CALL TYPES.
PROVIDE A TARGET OCCUPANCY LEVEL FOR AT LEAST SOME AGENTS OF THE TARGET MATRIX.
ASSIGN WORK TYPE OCCUPANCIES TO EACH AGENT OF THE PLURALITY OF AGENTS WITHIN THE TARGET MATRIX.

Fig. 5


ITERATIVLY REPAIR THE TARGET MATRIX.
SEQUENTIALLY SELECT AN AGENT AND RANDOMLY SELECT A WORK TYPE.
ASSIGN A FRACTIONAL OCCUPANCY OF THE AGENT TO THE RANDOMLY SELECTED WORK TYPE. THEREBY GENERATING A NEW TARGET MATRIX.
CALCULATE CHANGE IN AN OBJECTIVE FUNCTION OF THE NEW TARGET MATRIX.
ADOPT THE NEW TARGET MATRIX AS THE REPAIRED MATRIX WHEN THE CALCULATED CHANGE IS LESS THAN ZERO.